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Blown Film Extrusion System

Claims

1. Blown film extrusion system (1), which comprises at least the following characteristics:
 - a blowing head (5), which extrudes a film tube (9),
 - a pinch-off device (8), which pinches off the film tube (9),
 - film guiding elements (7, 13, 27, 28) that (3) guide the film tube (9) between its extrusion by the blowing head and its pinching off said blown film extrusion system being **characterized in that** the guiding elements (7, 13, 27, 28) contain a porous, preferably microporous material.
2. Blown film extrusion system (1) according to claim 1
characterized in that
the porous material is sintered material.
3. Blown film extrusion system (1) according to any of the afore-mentioned claims
characterized in that
the porous material comprises metallic components such as copper or bronze.
4. Blown film extrusion system (1) according to any of the afore-mentioned claims,
characterized in that
the porous material is arranged in such a way between the route of transport of the

film and/or the film tube (9) and a compressed air reservoir or an air supply line that air escapes through the porous material thereby exerting a force on the film.

5. Blown film extrusion system (1) according to any of the afore-mentioned claims,
characterized in that
the porous material has a thickness of between 1 and 10 mm.
6. Blown film extrusion system (1) according to the afore-mentioned claim,
characterized in that
the porous material has a thickness of between 2 and 5 mm.
7. Blown film extrusion system (1) according to any of the afore-mentioned claims,
characterized in that
the porous material has an average pore size of between 5 and 100 micrometers.
8. Blown film extrusion system (1) according to the afore-mentioned claim,
characterized in that
the porous material has an average pore size of between 10 and 60 micrometers.
9. Blown film extrusion system (1) according to the afore-mentioned claim
characterized in that
the porous material has an average pore size of between 20 and 45 micrometers.
10. Blown film extrusion system (1) according to the afore-mentioned claim,
characterized in that
the porous material is arranged in the region of the calibrations cage and/or the pinch-off unit.
11. Blown film extrusion system (1) according to the afore-mentioned claim,

characterized in that

the porous material is arranged in the region of the calibrations cage (20), several isolated plates made of porous material (27) being turned towards the film tube.

12. Blown film extrusion system (1) according to the afore-mentioned claim,

characterized in that

at least one part of the plates made of porous material (27), which part is staggered with respect to the other parts in the conveying direction (z) of the film tube (9), is also staggered with respect to the other parts in the circumferential direction (ϕ) of the film tube (9).

13. Method for operating a blown film extrusion system according to any of the claims 4 to 10

characterized in that

the pressure in the air reservoir (26) and/or the air supply line is adjusted in such a way that the pressure difference between the air reservoir and/or the air supply line and the ambient air is between 10 millibars and 1 bar.

14. Method for operating a blown film extrusion system (1) according to the afore-mentioned claim

characterized in that

the pressure in the air reservoir (26) and/or the air supply line is adjusted in such a way that the pressure difference between the air reservoir (26) and/or the air supply line and the ambient air is between 20 and 200 millibars.

15. Method for operating a blown film extrusion system (1) according to the afore-mentioned claim

characterized in that

the pressure in the air reservoir (26) and/or the air supply line is adjusted in such a way that the pressure difference between the air reservoir (26) and/or the air supply line and the ambient air is between 10 and 100 millibars.

16. Method for operating a blown film extrusion system according to the aforementioned claim

characterized in that

the pressure in the air reservoir (26) and/or the air supply line is adjusted in such a way that the pressure difference between the air reservoir (26) and/or the air supply line and the ambient air is between 30 and 90 millibars.